

C. W. REINOEHL & B. L. WEAVER.  
RAILROAD FROG.

APPLICATION FILED JULY 20, 1908.

912,621.

Patented Feb. 16, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

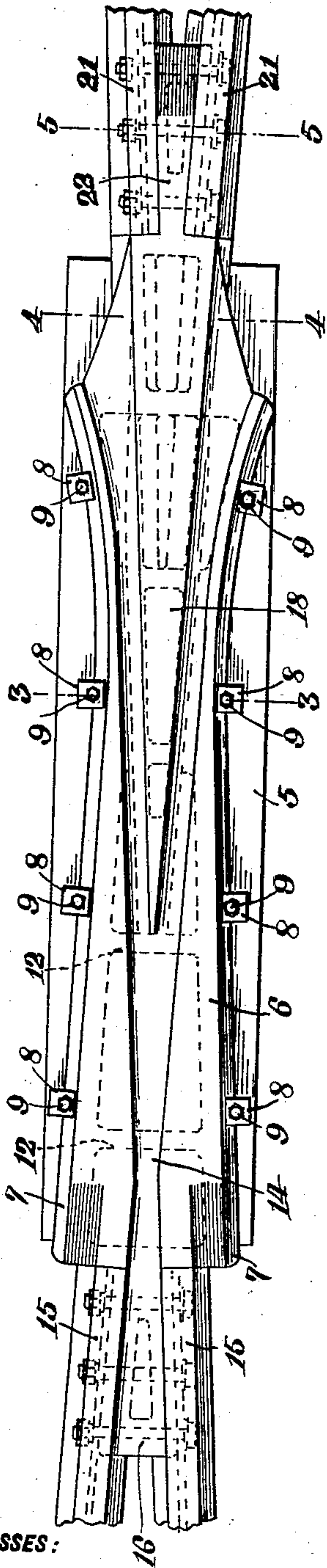


Fig. 2.

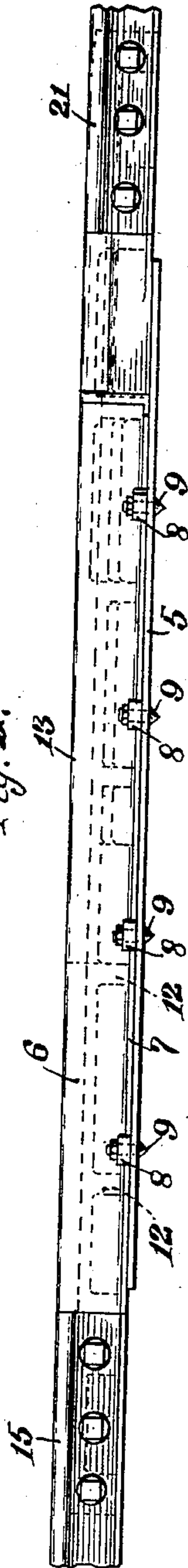


Fig. 4.

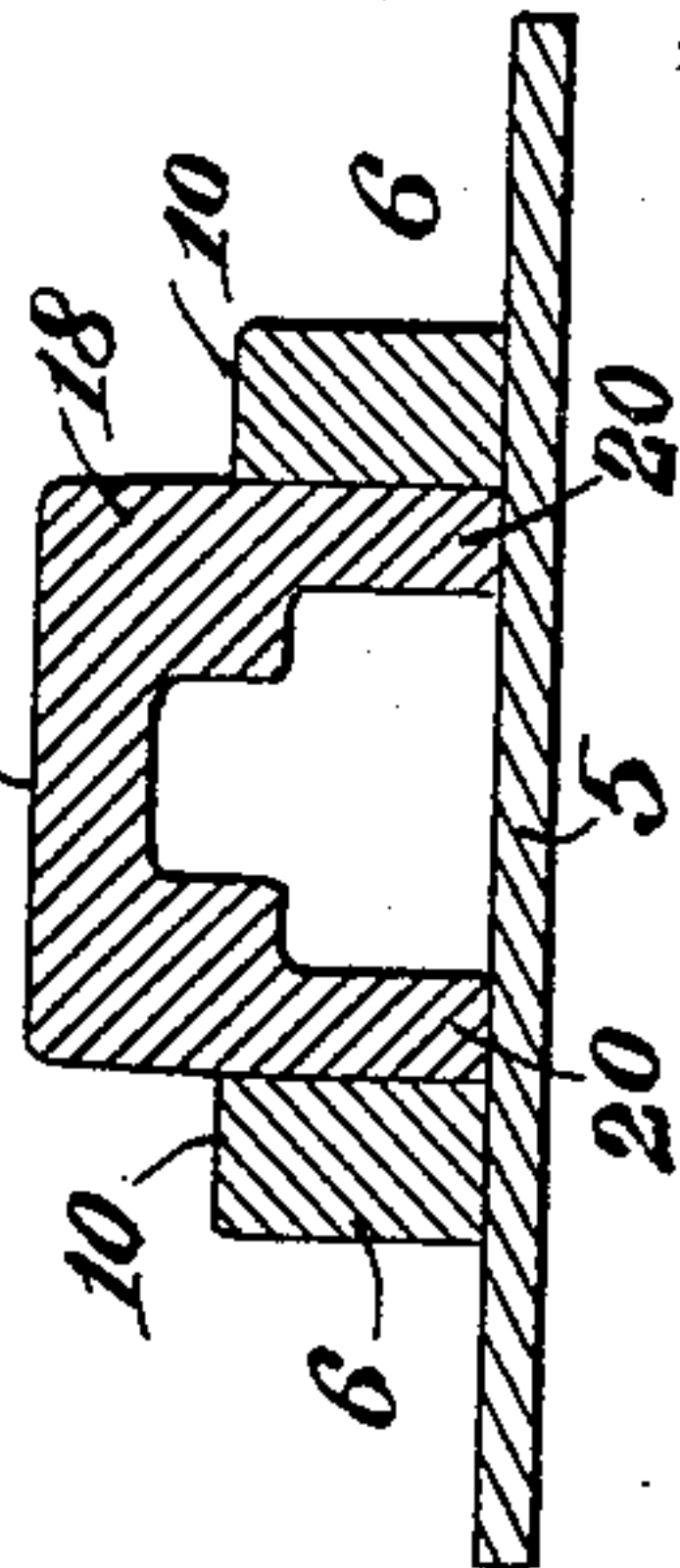


Fig. 3.

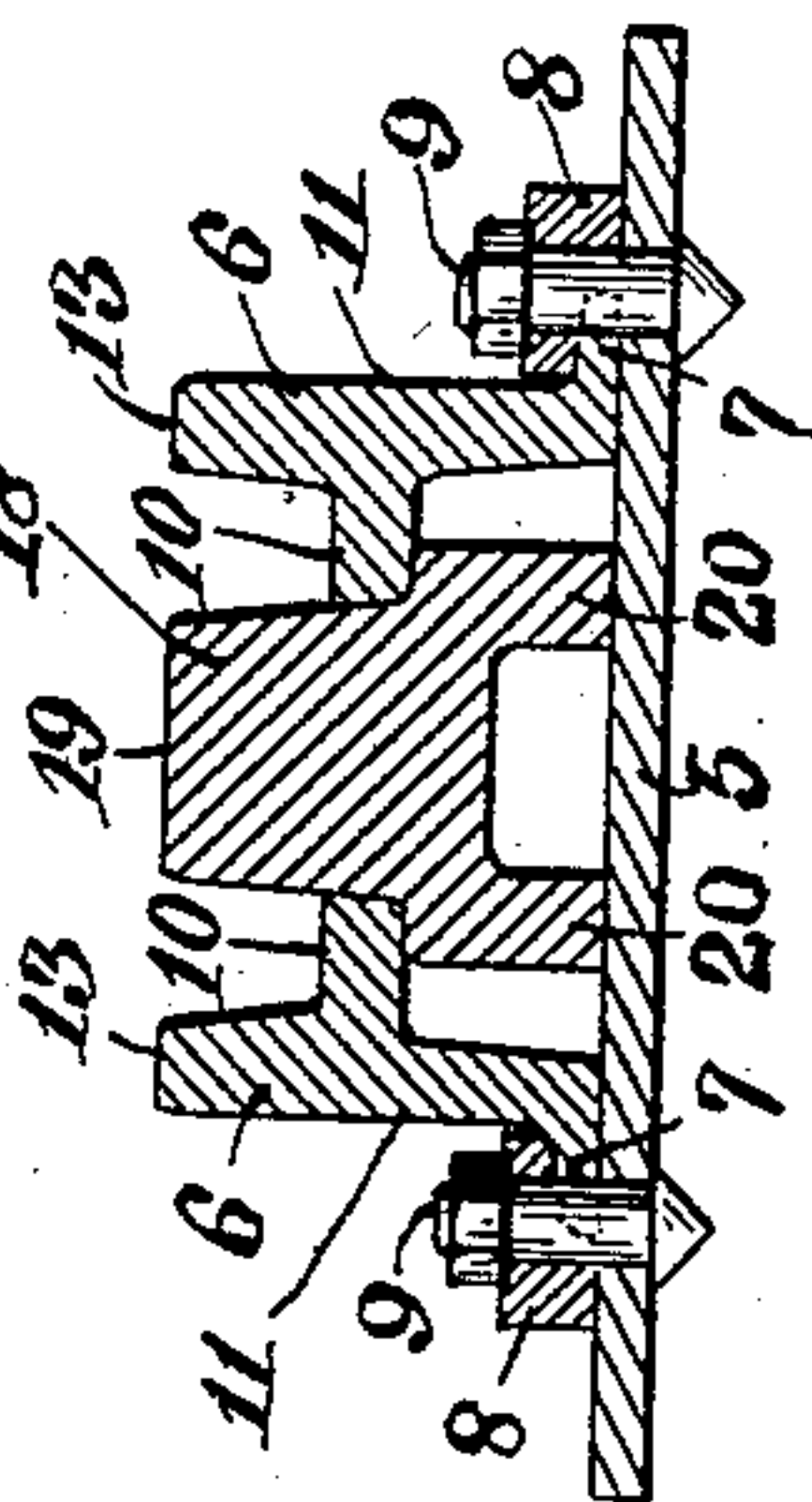
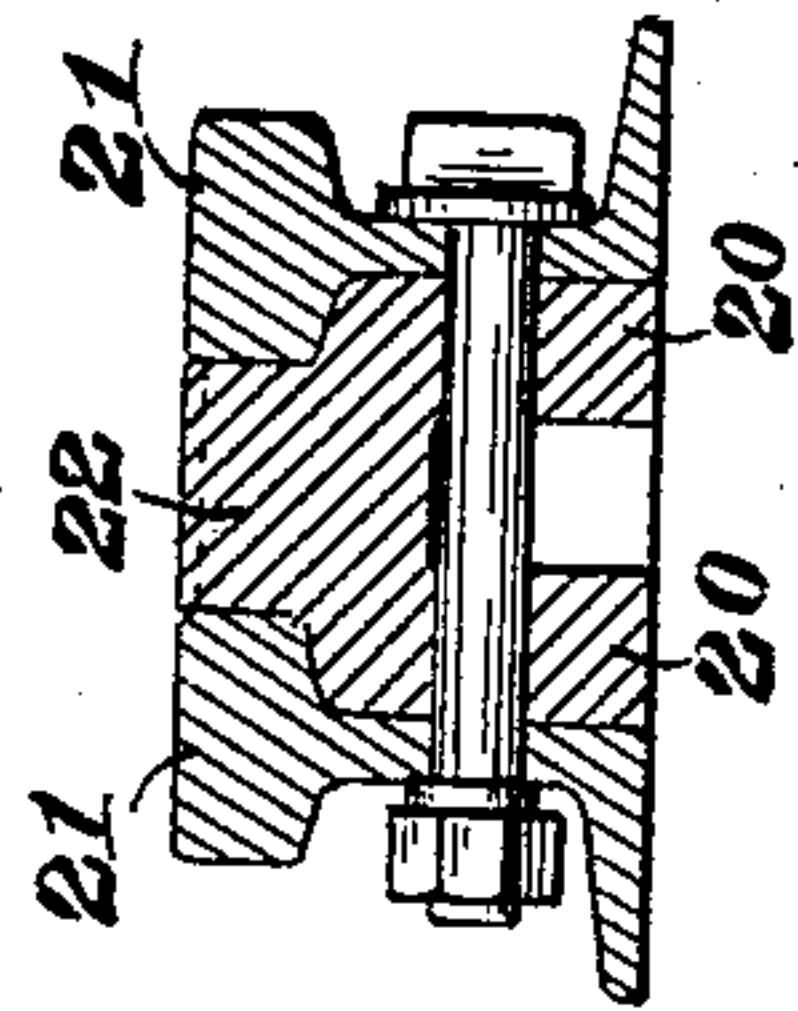


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 6.

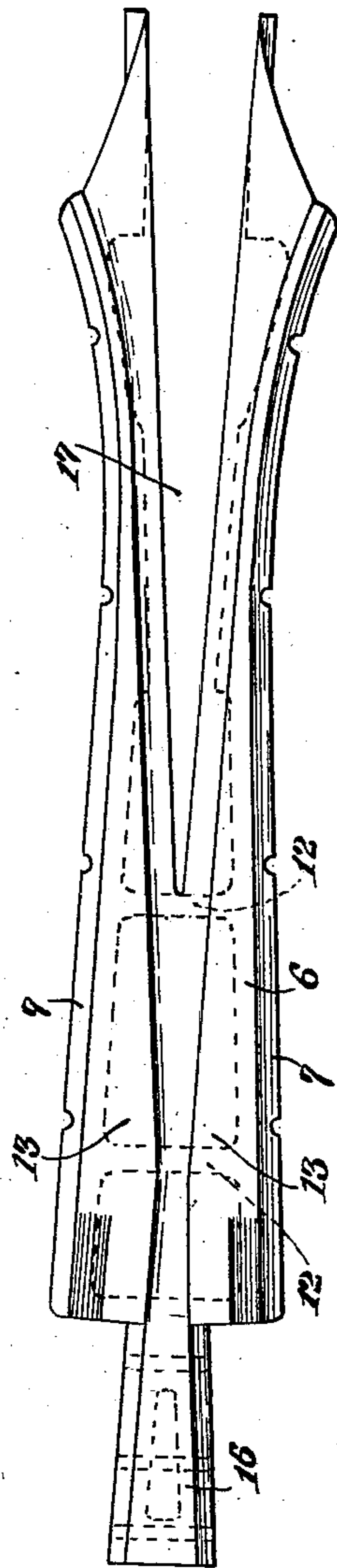
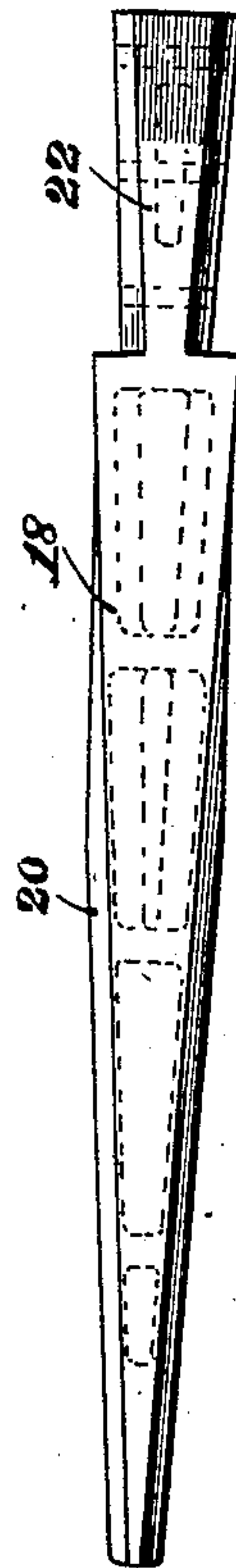


Fig. 7.



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# UNITED STATES PATENT OFFICE.

CHARLES W. REINOEHL AND BENT L. WEAVER, OF STEELTON, PENNSYLVANIA.

## RAILROAD-FROG.

No. 912,621.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed July 20, 1908. Serial No. 444,537.

*To all whom it may concern:*

Be it known that we, CHARLES W. REINOEHL and BENT L. WEAVER, citizens of the United States, and residents of Steelton, Dauphin county, State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Frogs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of this invention is to provide a railroad frog which may be constructed of hard and tough metal, and in which the member forming the central tread portion or point of the frog shall be separate from the main body or member forming the laterally disposed tread portions of the frog; so that when the two members are assembled together in a railroad structure, they will constitute a strong and practically unitary structure, as will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a plan view of our improved railroad frog, showing the ends of the stock rails and the ends of the point rails of a railroad structure secured thereto. Fig. 2 is a side elevation thereof. Fig. 3 is a transverse section, as on the line 3—3 of Fig. 1. Fig. 4 is a transverse section, as on the line 4—4 of Fig. 1. Fig. 5 is a transverse section, as on the line 5—5 of Fig. 1. Fig. 6 is a plan view of the main body portion of the frog, detached. Fig. 7 is a plan view of the point-forming portion of the frog, detached.

5 designates a base plate upon which is supported the body portion 6 of the frog, which is provided with longitudinally extending base flanges 7, and which is secured to the base plate 5 by means of blocks 8 engaging the flanges 7 and the base plate, and being secured in place by bolts 9 extending through the blocks 8 and base plate 5.

The body portion 6 is provided with a floor portion 10, arranged above the base plate 5 and providing a space between the floor and the base plate. The floor portion 10 is supported by the lateral walls 11 of the body portion, and the transverse strengthening webs 12.

Rising from the floor portion 10 are the laterally disposed tread portions 13, to receive the car wheels, and between which is

formed the flangeway to receive the car wheel flanges. The laterally disposed tread portions 13 diverge from the throat 14 of the frog in the usual manner.

Leading to the laterally disposed tread portions 13 of the frog and forming continuations thereof, are the heads or tread portions of the stock rails 15 of the railroad structure; and extending from the body portion 6 between the webs of the stock rails 15 is a projection 16, to which the stock rails 15 are secured by means of transverse bolts extending through the projection 16 and the rails 15.

Formed in the body portion 6, between the laterally disposed tread portions 13, is a tapering or wedge-shaped slot 17, to which is fitted the point-forming member 18 which rests upon the base plate 5 and comprises the upper tread-forming portion 19 extending above the floor 10 and the lower laterally-extending portions 20 which extend between the base plate 5 and the under side of the floor portion 10, thus supporting the said floor portion and preventing vertical displacement of the point-forming member.

Leading to the tread portion 19 of the point-forming member 18, and forming continuations thereof, are the heads or tread portions of the point rails 21 of the railroad structure; and extending from the point-forming member 18 between the webs of the point rails 21, is a projection 22, to which the point rails 21 are secured by means of transverse bolts extending through the projection 22 and the rails 21.

The engagement of the point-forming member 18 with the walls of the slot 17 effectually prevents lateral displacement of the point-forming tread portion 19 from its position between the laterally disposed tread portions 13; and the engagement of the laterally extending parts of the point-forming member 18 with the body portion 6 and the base 5, prevents vertical displacement of the point-forming member 17; and the engagement of the point-forming member with the point-rails 21 effectually holds the point-forming member in position within the slot 17 and in engagement with the body portion 6, thus forming a strong and practically unitary structure.

By removing the bolts which secure the



various parts of the structure together, either the point-forming member or the main body portion of the frog may be removed for the purpose of renewal or for  
5 other purposes.

Having thus described our invention we claim as new and desire to secure by Letters Patent:—

1. The combination with the stock rails  
10 and the point rails, of a frog comprising a single piece of metal forming a body portion provided with laterally disposed tread portions between which is formed a flangeway, and a tread-forming point portion remov-  
15 ably engaged with the body portion; and means for securing said rails to the frog, substantially as described.

2. The combination with the stock rails and the point rails, of a frog comprising a  
20 single piece of metal forming a body portion provided with laterally disposed tread portions between which is formed a flangeway, and a tread forming point portion removably engaged with the body portion; means  
25 for securing the stock rails to said body portion, and means for securing the point rails to said point portion, substantially as described.

3. The combination with the stock rails  
30 and the point rails, of a frog comprising a base plate, a body portion secured to said base plate and comprising a single piece of metal provided with laterally disposed tread portions between which is formed a flange-  
35 receiving groove, and a tread-forming point portion removably engaged with the body portion and resting upon the base plate; and means for securing said rails to the frog, substantially as described.

4. The combination with the stock rails  
40 and the point rails, of a frog comprising a single piece of metal forming a body portion provided with a slot and also provided with laterally disposed tread portions between  
45 which is formed a flangeway, and a tread-forming point portion fitted to said slot and removably engaged with the body portion; and means for securing said rails to the frog, substantially as described.

5. The combination with the stock rails  
50 and the point rails, of a frog comprising a single piece of metal forming a body portion provided with a slot and also provided with laterally disposed tread portions between  
55 which is formed a flangeway, and a tread-forming point portion fitted to said slot and removably engaged with the body portion; means for securing the stock rails to said body portion, and means for securing the

point rails to said point portion, substan- 60  
tially as described.

6. The combination with the stock rails and the point rails, of a frog comprising a base plate, a body portion secured to said  
65 base plate and provided with a floor portion above the base plate and laterally disposed tread portions, and a tread-forming point portion removably engaged with the body portion and having a part extending be-  
70 neath said floor portion; and means for securing said rails to the frog, substantially as described.

7. The combination with the stock rails and the point rails, of a frog comprising a base plate, a body portion secured to said  
75 base plate and provided with a floor portion above the base plate and laterally disposed tread portions, and a tread-forming point portion removably engaged with the body portion and having a part extending be-  
80 neath said floor portion; means for securing the stock rails to said body portion, and means for securing the point rails to said point portion, substantially as described.

8. The combination with the stock rails  
85 and the point rails, of a frog comprising a base plate, a body portion secured to the base plate and having a slot therein and provided with a floor portion above the base plate and laterally disposed tread portions, 90  
and a tread-forming point portion fitted to said slot and removably engaged with the body portion and having laterally projecting parts extending beneath said floor portions; and means for securing said rails to the frog, 95  
substantially as described.

9. The combination with the stock rails and the point rails, of a frog comprising a base plate, a body portion secured to the  
100 base plate and having a slot therein and provided with a floor portion above the base plate and laterally disposed tread portions, and a tread-forming point portion fitted to said slot and removably engaged with the  
105 body portion and having laterally projecting parts extending beneath said floor portion; means for securing the stock rails to said body portion, and means for securing the point rails to said point portion, substan-  
110 tially as described.

In testimony whereof, we have hereunto affixed our signatures.

CHARLES W. REINOEHL.  
BENT L. WEAVER.]

Witnesses:

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WM. R. MILLER.